

REMARKS

The applicant has deleted claims 21-30 and has submitted new claims 31-40. In the last office action the examiner rejected those claims as being obvious in view of US patent 4,199,496 Peniston et al. There are two distinct differences between the reference Peniston et al and the applicant's invention. The first as recited in the abstract is that Peniston et al is directed to the extraction of chemicals from the shell of crustacean species. The present invention is directed to a product and method that uses all of the components of shellfish waste. These *components* comprise (1.) shell, (2.) blood, (3.) lean tissue, (4.) fat, (5.) whole small crawfish, (6.) whole large crawfish, (7.) heads, (8.) intestines, (9.) body fluids, (10.) hearts, (11.) lungs, (12.) claws, (13.) appendages, and (14.) other waste parts. Peniston deals with only one aspect of the waste the chitin. The second is that Peniston is an alkaline based process while the instant invention is an acidic based process. Peniston discloses the use of several base chemicals. The primary base chemicals are sodium hydroxide, sodium sulfite, potassium hydroxide and potassium sulfite. As cited in the affidavit submitted under 37 CFR 1.131 for Mary Courtney states as follows:

"The process as described in application 09/927,996 of Walker uses an acidic based process. The primary chemical being HCL. HCL is the major digestive juice present in the human digestive tract. With a recovery pH of between 6.5 and 7.0, the livestock ingesting these pH levels are well within those recommended by the USDA and the resulting effluent is within EPA guidelines."

New claim 31 now claims a method for processing shellfish waste for live stock feed. An important step in the process is step g the intermittent stirring and settling allows a complete reaction to occur allowing the HCl to completely break down the waste. The examiner in an earlier office action stated that this step routine optimization of a known method., however without this step the use of the single chemical HCl would not be effective. As stated in the affidavit of Dr. Rao M. Uppu submitted under 37 CFR 1.131, "The process as disclosed and claimed by Walker 09/927,996 uses hydrochloric acid as the first and final chemical treatment. This is



less time consuming and cost effective, and thus provides a greater opportunity for a more economically feasible livestock feed.” In addition, Dr. Uppu states that Peniston et al “uses a wide range of chemical treatments (alkali, brine, and acid) and physical processes (several centrifugation steps) which are time consuming and increases the manufacturing costs so the final product does not have any monetary benefit. Perhaps, this could be the reason why no product was on the market using this process.”

New claims 36 and 37, now claim that the resulting treated waste having protein and chemical levels either comparable to or far superior to those now existing in the market. In the affidavit submitted under 37 CFR 1.131 of the applicant. It is pointed out the commercial viability of the process and its resulting end product. The applicant attests that at present there is no shellfish based livestock feed or supplement having the protein and chemical levels as claimed. Finally, Dr. Walker attests to the environmental impact this technology would have on the Louisiana shellfish market yearly

The Applicant having addressed and overcome the previous rejection of all claims under 35 USC 103 (a), respectfully requests reconsideration and formal allowance of the claims 31-40.

If there are any further questions concerning this matter please contact Applicant's attorney at 312-857-1997.

Respectfully submitted,

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